

Access DB# 84512**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: William R. Jordan Examiner #: 67771 Date: 1/15/02  
Art Unit: 1761 Phone Number 301-4311 Serial Number: 09/007930  
Mail Box and Bldg/Room Location: CRS 829 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

US 6,013,571**STAFF USE ONLY**

Non-Financial Report

|   | Type of Search        | Vendors and cost where applicable |
|---|-----------------------|-----------------------------------|
| Searcher: <u>William R. Jordan</u>      | NA Sequence (#) _____ | STN _____                         |
| Searcher Phone #: <u>24483</u>          | AA Sequence (#) _____ | Dialog _____                      |
| Searcher Location: _____                | Structure (#) _____   | Questel/Orbit <u>2820</u>         |
| Date Searcher Picked Up: <u>1/15/03</u> | Bibliographic _____   | Dr.Link _____                     |
| Date Completed: <u>1/15/03</u>          | Litigation <u>✓</u>   | Lexis/Nexis <u>4000</u>           |
| Searcher Prep & Review Time: <u>2</u>   | Fulltext _____        | Sequence Systems _____            |
| Clerical Prep Time: _____               | Patent Family _____   | WWW/Internet _____                |
| Online Time: <u>7</u>                   | Other _____           | Other (specify) _____             |

**Mellerson, Kendra**

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**From:** Knode, Marian  
**Sent:** Wednesday, January 15, 2003 7:59 AM  
**To:** STIC-EIC1700  
**Subject:** Litigation Search Needed for SN 09/007930, US PAT 6013591

Good morning!

I would like to request a litigation search for SN 09/007930, US PAT 6013591. Please deliver to my mailbox in 8D19.  
Thanks,

*Marian C. Knode*

SPRE  
703-308-4311

## Current session 15/01/2003

(C) QUESTEL 1994

QUESTEL.ORBITE (TM) 1998

15/01/03 15\*01\*51

Last connection: 13/01/03 20\*26\*43

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- Derwent Manual Code Definition Look-up File - INFO DWPIMC  
- FRTM - FRPATENT : changes. New thing FRTM - INFO INPI  
..FILE / ..INFO / ..GUIDE

## Query/Command : FILE PLUSPAT

QUESTEL - Time in minutes : 0,63

The cost estimation below is based on Questel's  
standard price list

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|   | Estimated cost : | 0.58 USD |
| Cost estimated for the last database search : |                  | 0.58 USD |
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Selected file: PLUSPAT

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Comprehensive Worldwide Patents database  
New Patent Citation Commands & FAM Citation Report - see INFO PATCITE  
Last update of file: 2003/01/03 (YYYY/MM/DD) 2003-01/UP (basic update)

Search statement 1

## Query/Command : US6013591/PN

## \*\* SS 1: Results 1

Search statement 2

## Query/Command : PRT FULL NONSTOP LEGALALL

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1/1 PLUSPAT - ©QUESTEL-ORBIT

PN - US6013591 A 20000111 [US6013591]

TI - (A) Nanocrystalline apatites and composites, prostheses incorporating them, and method for their production

**PA** - (A) MASSACHUSETTS INST TECHNOLOGY (US)  
**IN** - (A) NAKAHIRA ATSUSHI (JP); YING JACKIE Y (US); AHN EDWARD S (US)  
**AP** - US793098 19980116 [1998US-0007930]  
**PR** - US793098 19980116 [1998US-0007930]  
 US3553597P 19970116 [1997US-P035535]  
**IC** - (A) A61F-002/28 C01B-015/16 C04B-035/01  
**EC** - A61L-027/12  
 A61L-027/32  
 C04B-035/447  
**ICO** - K61F-002/00A6B2Z  
 K61F-002/00A6E  
 K61F-002/00L22E  
**PCL** - ORIGINAL (O) : 501001000; CROSS-REFERENCE (X) : 106035000 423308000  
 423311000 424422000 424423000 427002270 428689000 428704000 623023710  
 623023760  
**DT** - Basic  
**CT** - US4097935; US4195366; US4207306; US4330514; US4497075; US5030474; US5134009;  
 US5405436; US5427754; US5470803; US5501706; US5522893; US5542973; US5545254;  
 US5667796  
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L.L. Hench, "Bioceramics: From Concept to Clinic", J. Am. Ceram. Soc. 74 7, pp. 1487-  
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L.L. Hench and J. Wilson, An Introduction to Bioceramics, Chapter 1 "Introduction", pp. -  
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M. Akao, et al., "Dense Polycrystalline .beta.-Tricalcium Phosphate For Prosthetic  
 Applications," J. of Materials Science, 17, pp. 343-346, 1982, no month.

M. Jarcho, et al., "Hydroxylapatite Synthesis and Characterization in Dense Polycrystalline  
 Form", J. of Materials Science, 11, pp. 2027-2035 (1976), no month.

M. Akao et al., "Mechanical Properties of Sintered Hydroxyapatite for Prosthetic  
 Applications", J. of Materials Science, 16, pp. 809-812 (1981), no month.

K. Niihara, et al., "New Nanocomposite Structural Ceramics", Nanophase and  
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 Symp Proc., vol. 286, pp. 405-412 (1993), no month.

**STG** - (A) United States patent  
**AB** - Methods for synthesis of nanocrystalline apatites are presented, as well as a series of specific reaction parameters that can be adjusted to tailor, in specific ways, properties in the recovered product. Particulate apatite compositions having average crystal size of less than 150 nm are provided. Products also can have a surface area of at least 40 m<sup>2</sup>/g and can be of high density. Hydroxyapatite material is investigated in particular detail. Compositions of the invention can be used as prosthetic implants and coatings for prosthetic implants.

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*1 / 1 LGST - ©LEGSTAT*

**PN** - US 6013591 [US6013591]  
**AP** - US 7930/98 19980116 [1998US-0007930]  
**DT** - US-P  
**ACT** - 19980116 US/AE-A  
APPLICATION DATA (PATENT)  
US 7930/98 19980116 [1998US-0007930]  
  
20000111 US/A  
PATENT  
  
20020917 US/RF  
REISSUE APPLICATION FILED  
20020111  
**UP** - 2002-38

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*1 / 1 CRXX - ©CLAIMS/RRX*

**PN** - 6,013,591 A 20000111 [US6013591]  
**PA** - Massachusetts Institute of Technology  
**ACT** - 20020111 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20020917  
REISSUE REQUEST NUMBER: 10/044801  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1755

Reissue Patent Number:

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*1 / 1 PAST - ©Thomson Derwent*

**AN** - 200238-001672  
**PN** - 6013591 A [US6013591]  
**OG** - 2002-09-17  
**ACT** - REISSUE APPLICATION FILED

Query/Command : FILE INPADOC

PLUSPAT - Time in minutes : 0,43

The cost estimation below is based on Questel's standard price list

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|---|------------------|----------|
|   | Estimated cost : | 1.00 USD |
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|   | Estimated cost : | 1.25 USD |
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| Estimated total session cost :                |                  | 2.83 USD |

LGST - Time in minutes : 0,08

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|   |                  |          |
|---|------------------|----------|
|   | Estimated cost : | 0.10 USD |
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|   | Estimated cost : | 0.60 USD |
| Cost estimated for the last database search : |                  | 0.70 USD |
| Estimated total session cost :                |                  | 3.53 USD |

CRXX - Time in minutes : 0,06

The cost estimation below is based on Questel's standard price list

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|---|------------------|----------|
|   | Estimated cost : | 0.09 USD |
| Records displayed and billed :                | 1                |          |
|   | Estimated cost : | 5.00 USD |
| Cost estimated for the last database search : |                  | 5.09 USD |
| Estimated total session cost :                |                  | 8.62 USD |

PAST - Time in minutes : 0,05

The cost estimation below is based on Questel's standard price list

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|---|------------------|-----------|
|   | Estimated cost : | 0.10 USD  |
| Records displayed and billed :                | 1                |           |
|   | Estimated cost : | 5.92 USD  |
| Cost estimated for the last database search : |                  | 6.02 USD  |
| Estimated total session cost :                |                  | 14.64 USD |

LITA - Time in minutes : 0,00

The cost estimation below is based on Questel's standard price list

|                                |  |           |
|--------------------------------|--|-----------|
| Estimated total session cost : |  | 14.64 USD |
|--------------------------------|--|-----------|

Selected file: INPADOC

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For information on content, ..INFO INPD.

Search statement 1

Query/Command : FAM US6013591/PN

1 Patent Groups

\*\* SS 1: Results 1

Search statement 2

## Query/Command : FAMSTATE NONSTOP

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*1/1 INPADOC - ©INPADOC*

**PN** - US 6013591 A 20000111 [US6013591]  
**TI** - NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESES  
INCORPORATING THEM, AND METHOD FOR THEIR PRODUCTION  
**IN** - YING JACKIE Y [US]; AHN EDWARD S [US]; NAKAHIRA ATSUSHI [JP]  
**PA** - MASSACHUSETTS INST TECHNOLOGY [US]  
**AP** - US 7930/98-A 19980116 [1998US-0007930]  
**PR** - US 7930/98-A 19980116 [1998US-0007930]  
US 35535/97-P 19970116 [1997US-P035535]  
**IC** - C01B-015/16; A61F-002/28; C04B-035/01

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*1/1 LEGALI - ©LEGSTAT*

**PN** - US 6013591 [US6013591]  
**AP** - US 7930/98 19980116 [1998US-0007930]  
**DT** - US-P  
**ACTE** - 19980116 US/AE-A  
APPLICATION DATA (PATENT)  
US 7930/98 19980116 [1998US-0007930]  
  
20000111 US/A  
PATENT  
  
20020917 US/RF  
REISSUE APPLICATION FILED  
20020111  
**UP** - 2002-38

PATNO IS 6013591

DATE: JANUARY 15, 2003  
LIBRARY: PATENT  
FILE: ALL

Your search request is:  
PATNO IS 6013591

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LEVEL 1... 1

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For further explanation, press the H key (for HELP) and then the ENTER key.



LEVEL 1 - 1 PATENT

1. 6013591 , January 11, 2000 , Nanocrystalline apatites and composites, prostheses incorporating them, and method for their production, Ying, Jackie Y., Winchester, MA; Ahn, Edward S., Cambridge, MA; Nakahira, Atsushi, Kyoto, JP, 007930 (00), Massachusetts Institute of Technology, Cambridge, MA

CORE TERMS: sub, hydroxyapatite, apatite, nanocrystalline, sintering, concentration, particle, powder, sup, aging ...

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6013591

<=1> GET 1st DRAWING SHEET OF 6

January 11, 2000

Nanocrystalline apatites and composites, prostheses  
incorporating them, and method for their production

REISSUE: January 11, 2002 - Reissue Application filed Ex. Gp.: 1755; Re. S.N.  
10/044,801 (O.G. September 17, 2002)

APPL-NO: 007930 (00)

FILED-DATE: January 16, 1998

GRANTED-DATE: January 11, 2000

CORE TERMS: sub, hydroxyapatite, apatite, nanocrystalline, sintering,  
concentration, particle, powder, sup, aging ...

ENGLISH-ABST:

Methods for synthesis of nanocrystalline apatites are presented, as well as a series of specific reaction parameters that can be adjusted to tailor, in specific ways, properties in the recovered product. Particulate apatite compositions having average crystal size of less than 150 nm are provided. Products also can have a surface area of at least 40 m.sup.2 /g and can be of high density.<P><P> Hydroxyapatite material is investigated in particular detail. Compositions of the invention can be used as prosthetic implants and coatings for prosthetic implants.

6013591 OR 6,013,591

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